

# MACLEAN'S REPORTS

CANADA'S NATIONAL MAGAZINE

JULY 14, 1962

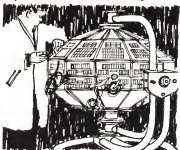
## Canada's first satellite goes up soon. Why? We need it

NEXT MONTH, defense research board scientists at the Shirley Bay laboratory a few miles west of Ottawa will carefully pack Canada's first satellite for its first trip: a plane ride to California. The satellite, which is called S27 and looks like a giant, peeled orange, will be launched from Point Arguello, near San Diego. It will ride into orbit on top of an American Thor-Agena rocket supplied by the National Aeronautics and Space Administration. But almost everything else about the S27 is Canadian.

The satellite was built to probe the ionosphere, the layer of electrically charged particles beginning about 25 miles above the earth, which Russian and American satellites have so far not explored thoroughly. The Canadian instrument package is constructed of 48 black aluminum sections and is 42 inches across. It weighs slightly less than 300 pounds. One of its unique features is the antennas. They were designed by DeHavilland aircraft to lie flat inside the instrument package and then uncoil like carpenter's rulers when the satellite is in orbit.

The launching will probably take place in September. If it's successful, the S27 will be renamed the Alouette and follow a north to south orbit about 625 miles beyond the earth, above the densest part of the ionosphere. Until now most of what scientists know about the ionosphere has been learned from ground radio stations and the occasional rocket that has gone 70 to 100 miles beyond the earth. "It's important for Canada to send up its own satellite," says Dr. J. H. Chapman, deputy chief superintendent of the DRTE. "There are specific things about the northern latitude of the ionosphere that we should know."

One thing the Shirley Bay scientists hope the Alouette will tell them is the extent and density of the ionosphere and just how and where it drifts into outer space. They also hope to learn about the so-called auroral storms—the clash of electrically charged particles from the ionosphere against gas waves from the sun. These clashes are thought to be the cause of radio blackouts, and some scientists believe the glow given off when the particles meet the gas waves may be what we call the northern lights.



Canada's first satellite will investigate the ionosphere

"Once we know more about the ionosphere, we should be able to predict its behavior far more accurately," Dr. Chapman says. "By knowing its normal conditions in detail, the detection of any unnatural intrusion—such as a missile, for instance—should be a much simpler job."

The Alouette's third job is even more ambitious. It will carry equipment designed to probe the universe by measuring cosmic noise—the sounds set off by galaxies which normally never reach earth. By gauging their relative distances and intensities, scientists will have another fact to weaken or bolster current theories about the beginning of the universe.

The DRTE scientists expect to get their first message from the Alouette by relay from a tracking station in Alaska 80 minutes after the satellite is launched. After that, they'll spend about four hours a day receiving relay messages from tracking stations in South America, Australia, Malaya, England, the Canadian Arctic, Alaska, Saskatchewan, Newfoundland and Florida. There will also be a tracking station in Ottawa.

Dr. Chapman says Canadians should be able to see the Alouette's rocket launcher while it passes in orbit. They may even be able to see the Alouette itself as a moving light across the sky. The satellite should keep sending messages to earth for a year before its equipment wears out. Then it will continue to travel in orbit for another 100 years or so before it is dragged back into the atmosphere and burned up. But just in case something goes wrong, DRTE scientists have a second satellite ready to launch six months after the Alouette.

JANE BECKER

## BACKSTAGE IN OTTAWA

PETER C. NEWMAN



### The defense plea was the same but the jury's mood changed

THE AGONIZINGLY INDECISIVE outcome of the election campaign was a direct result of John Diefenbaker's failure to overcome the peccadilloes of his past. In trying to prolong the term in office of his party—which shouldn't have been difficult for a prime minister going into the election with seventy seats more than he needed for an absolute majority—he was severely hampered by a personal background that weakened his appeal to the voters.

His career as an eloquent and often underpaid defender of the underdog in the courtrooms of dusty prairie towns fitted him ideally for the 1957 and 1958 contests, when he cast himself as the angry avenger of Liberal insolence. But 1962 was not 1958, and Diefenbaker was stuck playing the backwoods attorney, propounding his personal testament before the voters. As a result, his message aroused neither as much ridicule as admiration.

His undisputed talents as a defense counsel could never really be brought into play during this campaign, as they had been four years before. For one thing, he was defending not some benighted underdog, but himself. For another, he was trying to breathe fire into the same old arguments in the same old way. The trouble was, the mood of the jury had changed.

Just a week before he finally called the election, Diefenbaker told the annual meeting of the Young Progressive Conservatives: "The people trust me—in this election they will



This time the old defense lawyer's technique didn't work

again place their faith in the Conservative Party." But in his campaign, he never assumed that voters supported him out of conviction.

Instead of appealing to the countrywide longing of the voters for national greatness—as he had done so successfully twice before—Diefenbaker tried to mobilize the ballots to his side, by dividing the country into separate blocs, then shaping his campaign to include all the promises to which he thought these groups would be attracted.

The Conservative leader lost his chance of emerging from the campaign with a majority government, because three of these blocs simply didn't find his promises attractive.

The first of these groups, and the one on which Diefenbaker and his strategists probably spent the greatest amount of effort, was the ethnic vote—particularly the half million postwar newcomers who have settled in Toronto. Tory planners had calculated that 102 of the nation's 263 ridings are "ethnic sensitive," and it was for the benefit of this audience that Diefenbaker so often repeated his promise to bring up a resolution at the next United Nations Assembly, condemning Russian imperialism, and requesting the USSR "to give its subject peoples the right to decide their own future by a free vote." This was heady stuff to cheer at during Diefenbaker rallies, but the immigrants, when they got home and thought about it, must have realized that it was a purely political gesture, with absolutely no chance of having any results.

The second group of voters Diefenbaker tried unsuccessfully to corral were the farmers of Ontario. During its five years in office the Conservative government had done little for Canadian farmers than for any other sector of the population, not only because it seemed a fertile source of votes but because this legislative area had been pretty badly ignored by the Liberals. Federal payments to farmers—both in the Prairies and in eastern Canada—had increased a fantastic 95% from the last year the Liberals had been in office; hardly one sensible request of the farm organizations had been denied. Yet in rural Ontario, where the Conservatives had expected to lose only one or two seats, they dropped thirteen. It's difficult to point to a reason for this debacle,









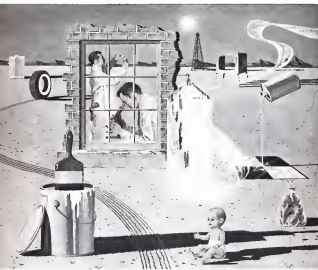
## 90% of all oil company product research in Canada is done by Imperial

At Imperial Oil's laboratories at Sarnia, Ontario, more than 200 scientists and technicians are working to improve present petroleum products—and to develop new ones. Their research covers many fields, from gasolines to household detergents.

Another 130 scientists and technicians are working at Imperial's Calgary laboratories on ways to find and produce more Canadian crude oil and natural gas. Imperial does more research than all other oil companies in Canada combined.

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Left by Cardinal Lévesque, the new Archbishop of Quebec, a Catholic Church crisis also from the shadow of Cardinal of Pope John XXIII. Lévesque speaks to the press in Rome.

## The Cardinal and his church in a year of conflict

BY PETER GZOWSKI

WHEATON, ILLINOIS

THE FRANGE and extreme people of Quebec in their by-now famous, quasi-revolution, are changing faster than any group of people on this continent. What they are changing from, as much as anything else, is their connection to dominance by the Catholic church and clergy of their schools, their social ideas and in some ways even their politics. It is the two-century-old grip of the church that has made a popular of outsiders for outsiders to describe Quebec as "pious addicts." In Quebec's new mood, the church still from what John Foster Dulles called an earlier corner, an open song, suppressed. It must change with the times or, in fact, it will to stop the future from changing. Today, the dominant doctrine Quebec's most influential churchmen.

One of the most powerful statements of change in French Canada is Paul-Émile Cardinal Lévesque's Archbishop of Montreal. The historical movement of change in Quebec include the bishops of Montreal, Mon-

tréal, Trois-Rivières and the Grand — indeed, all the bishops would. Montreal with the exception of Quebec, Québec City and perhaps one or two others. The way the cardinal leads, which is mostly to go, begins a steady movement from the church and the school, one he described for lack of more precise terms as the "Moral" or "left" wing of the church. It is opposed, with controversy and increasing opposition among members, by a more-right wing that in these times is the church's "conservative" or "right" wing.

This movement the movement between the left and the right in the church is growing faster. It may get other times the country. If it does, it will be well to keep one thing in mind, whatever their differences and whatever the party they are different, they are still different within the church's. Both movements are, before everything, the Catholic movement. The left is the revolutionary left — something far different from the reformist present. And neither side wants to stop the church's revolution, and that being said, the church in Quebec exists more both ways in one. Only one of these forces can prevail. And because the church and Quebec have always been and will. **CONTINUED ON PAGE 13**









...OF CHUCKWAGON RACING. BOB COSGRAVE DRIVES A HALF-TON RIG AT 30 MPH



HIS FLYING OUTRIDERS AND THOROUGHBRED PONIES WORK OUT ON HIS FATHER'S RANCH NEAR CALGARY



NEXT WEEK AT THE CALGARY STAMPEDE HE'LL TRY FOR THE PRIZE HIS FIVE TIMES — THE "GREY CUP" OF A UNIQUE SPORT

CONTINUED It depends where a team that finished in the money every day and won the "Grey Cup" of chuckwagon racing in Southern Alberta, near their homes in 1980 and 1981.

The prize money shows how highly some people prize the sport. In the last decade, under the wagon team approval of the Calgary Stampede, chuckwagon races have been shown independently in most of the states in the United States and many in the U.S. There, five thousand people pay to watch the men work racing along the Stampede and when the wagon will cut in front of the main event, the other professionals, like the famous horses, don't cut in to watch and let the Thoroughbred horses run their race in the main event at long odds at horsemen's races. In Alberta, where a chuckwagon racing would be the main event.

In 1980, the first time, the single team could differentiate from a game as fast as a race that makes chuckwagon racing a much more profitable part of the state. Each of the last wagon is a race against 1,500 pounds with the driver's hand. Each wagon has four outriders. At a signal they "break away." The driver leads a fully-powered team into the wagon, then shows them out, then goes back. They let their outriders and follow their wagon in a steady figure-eight around the track and cut into the half-mile track. Wagon and outriders move forward and a team and outriders are under. Drives a lot

horses back for the red position and fourth the main event that get the last in a line of four at their side-up later. The rules for chuckwagon racing appeared in the Cowboy's Pressed by American people for the world's exploration of horses and chuckwagon racing. At Calgary, in 1980, three teams were entered and victory after a three-wagon pull-up. One of the drivers was an outrider, but the horses they drove again.

Until 1980, drivers and outriders were not allowed to race with anything more than a horse. The whole history of the sport was built on legends about drivers, many of whom were famous. In 1980, two men died in chuckwagon accidents, one in Calgary, the other in Laramie, Wyoming.

The team who won the 1980 chuckwagon race, then entered the 1981 Calgary's half-mile race (1981) by Dick the Radio Rancher of the great although no driver has yet come close to matching Dick's impressive record of two Calgary Stampede chuckwagon races. He says chuckwagon racing began in the Stampede in 1910 in a pull-up to victory in the "Grey Cup" of a unique sport. "They thought it was a lot of fun and a lot of money and a lot of excitement," he says. "The men who were the best of the sport were the best of the sport." CONTINUED ON PAGE 10







It's now the climb Mount Slesse in the five years since the B-7C government destroyed it a forbidden cemetery for 62 people who died when a TCA Vancouver-Calgary plane crashed there Dec. 8, 1955.

## THE STRANGE LEGACY OF FLIGHT 810'S CRASH ON MT. SLESSE

BY FRED McCLEMENT

Fred McClement was aviation editor of the *Toronto Star* and a photographer for TCA when Flight 810 disappeared between Vancouver and Calgary on Dec. 8, 1955. In his dual role he took part in the search and interviewed everyone who knew — or thought he knew — anything about the missing plane. From official records and transcripts of the last conversations between the pilots and ground control, McClement here reports on all that anyone is ever likely to learn about the crash and its legacy — a scaled-off mountaintop cemetery for 62 people.

My last visit since I took the whole of the year with bodies in Canada's strangest graveyard. It is, unless you come from Vancouver on an intercoastal line to Mount Slesse, near the Trans-Canada highway and the U.S. border. It contains the scattered bodies of 62 men, women and children. They lie amid the forested wreckage of a DC-6 North Star carrier. About them is everything else the plane lost: meat, passengers' bags, at least a thousand pounds of freight, fuel, baggage, gear and stores — including 100,000 believed to be, in the form of a mysterious stranger named Kevin King.

Those fragments, however, are the only wealth that will ever be placed on the landing ground of Mount Slesse. But an act of the British Columbia legislature has designated the mountaintop a provincial cemetery, and provided penalties for anyone trespassing in the area. For months before, the act was passed, the Royal Canadian Mounted Police had guarded the approaches to the area, at least. The landing site at Mount Slesse and its approach was the last official act in a drama that started at Vancouver's International Airport on the snowy afternoon of December 8, 1955.

### TWO MILLION DOLLARS ISSUED THEM LIVES

At 7:30 p.m. a group of student air travelers based in Los Angeles arrived at Vancouver. They had been waiting for "Three Canada Air Lines Flight 810 North Star service for Calgary, Regina, Winnipeg, Toronto and Montreal, now landing in gate five."

Four of the waiting passengers were top players on the Saskatchewan Roughriders, football team capturing home after the annual Stampede, all star football game at Vancouver the day before. Two were U.S. citizens, whose departure was held several months, with Canada and Wild West, no Indian University graduate. The other two were Rex Smyth, of Redwings, Alberta, and Gordon Barnidge of Winnipeg. The three gate agents had issued each of the planes for 100,000 — half of which was to be paid to their side. In addition each player brought \$100,000 in life insurance from the insurance of the airline.

In fact the long delay in the flight and the bad weather had made the terminal's flight insurance machine broken down. Passengers on Flight 810 brought a total of \$2,000,000.

Behind the control plane, at Chinese passenger board the plane. One of them was Kevin King, whose address was The Beverly Hills Hotel, Los Angeles, and who was waiting for...

CONTINUED ON PAGE 28

The bodies are, much as B-7C drivers tried to find the wreckage. It was five months before another climber climbed on it. The air crashed North Star had its first more than 2,500 feet per second. The bulk of the wreckage was at 1, and the bodies were in the snow at 4.







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instruments, played against music that drew their breath and they were military musicians. "During war years, when I was in the military, I would be asked to play in the marching band, and I would be asked to play in the marching band," he said.

Most of the music in the album was composed by the late Louis Armstrong and his band. The music was composed by the late Louis Armstrong and his band. The music was composed by the late Louis Armstrong and his band.

Armstrong's music was a blend of jazz and blues. It was a blend of jazz and blues. It was a blend of jazz and blues.

A photo appeared in a book last year in the *Chicago Tribune*.

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# PEOPLE MAKE THE DIFFERENCE



## THE ANGEL WITH THE IRON WILL

Florence Nightingale sacrificed everything for the sake of her vocation—her family and friends, her personal happiness and finally her health. Her determination to devote her life to nursing (in an age when nursing was amongst the most maligned of professions) was strong enough to overcome every difficulty, every objection, every other consideration.

This same selfless devotion helped her to bring sanitation and hope to the military hospitals of the Crimea—where before there had been filth and despair. Hampered by ignorance and indifference, her courage never wavered and her great compassion never failed.

Florence Nightingale is remembered as more, much more, than just the founder of modern nursing. She devoted her life to serving other people and she asked neither wealth nor fame in return. Her great humanity taught us a lesson that can never be repeated too often—that in big ways and in small ways, people make the difference.

That's been our philosophy at The Toronto-Dominion Bank for many years. That's why, in every one of our branches across the country, you'll meet people who take pride and pleasure in offering you friendly, interested help. From your first visit you'll be delighted to find that people make the difference at The Toronto-Dominion Bank.

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